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(54) **SENSING DEVICE USING PROXIMITY SENSOR AND MOBILE TERMINAL HAVING THE SAME**

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See application file for complete search history.

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(57) **ABSTRACT**

A mobile terminal includes a sensing device that uses a proximity sensor. The sensing device includes: a proximity sensor sensing approach of an external object; and a lens unit installed on top of the proximity sensor. The lens unit includes: a lens body having a first through-opening through which light emitted from a light emitting unit of the proximity sensor passes and a second through-opening through which light, reflected from the external object and entering into a light receiving unit of the proximity sensor, passes; and a reflective film formed in the lens body to surround edges of the first through-opening and the second through-opening. The lens body and the reflective film are integrated with each other by double injection molding. The lens body and the reflecting film are manufactured in a single body by double injection molding.

20 Claims, 6 Drawing Sheets